



Converting Waste Into Resources

1,4-Dioxane at LACSD

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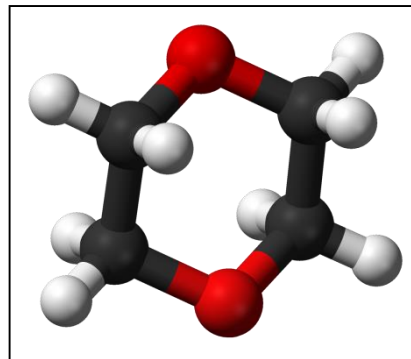




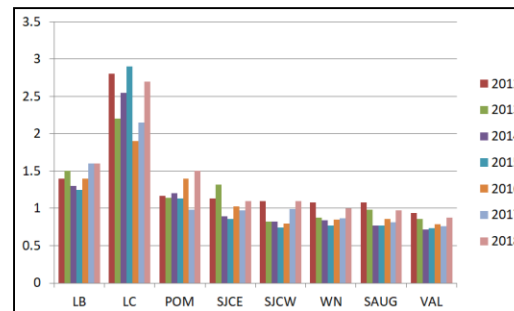
Topics that will be covered today



LACSD overview



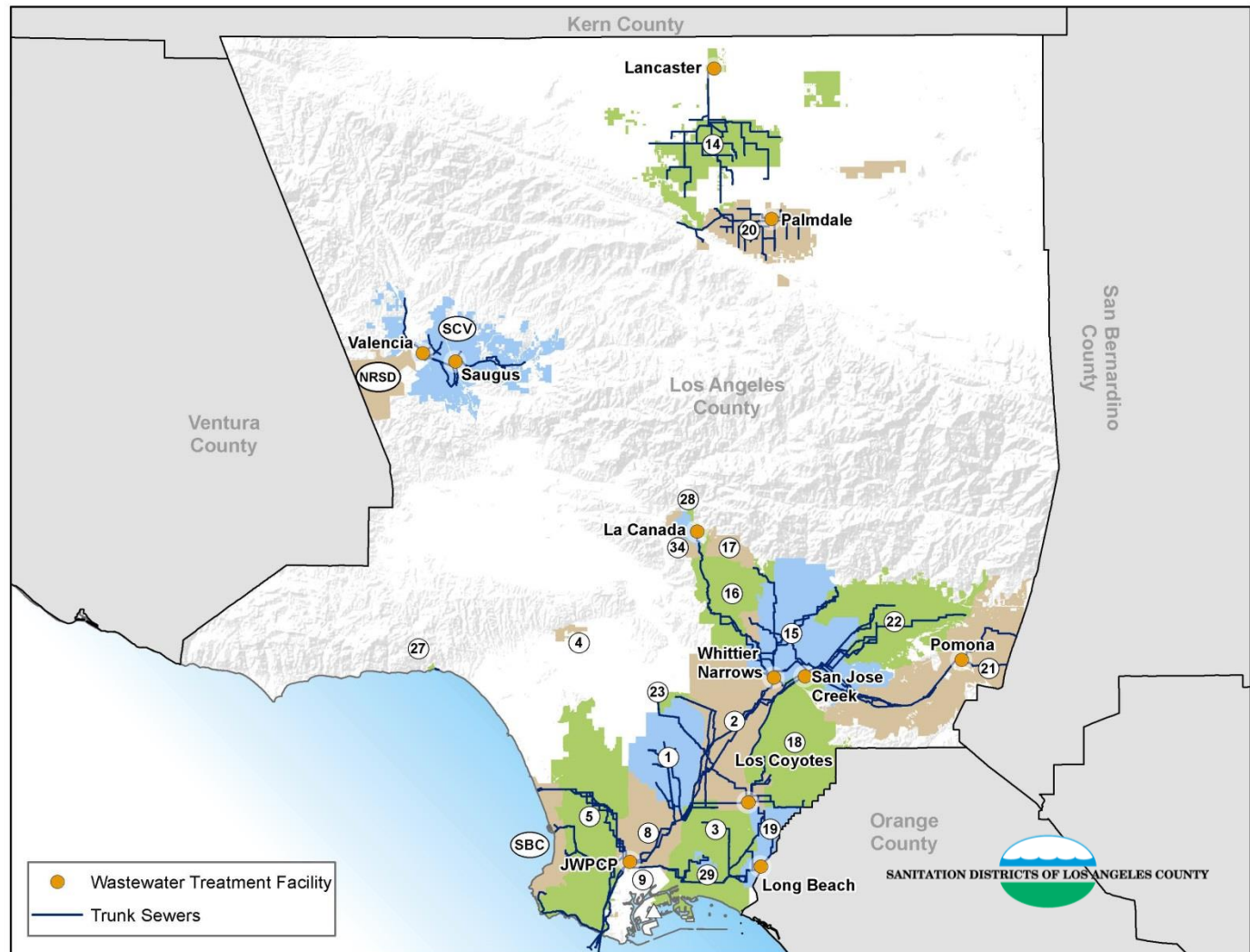
1,4-dioxane
regulations



1,4-dioxane data



LACSD operates large interconnected wastewater systems in LA County





LACSD is a major recycled water producer





Groundwater recharge is highest volume use



Montebello Forebay



LVL Water Treatment Facility



MWD Demo Project



1,4-Dioxane is regulated in groundwater recharge projects



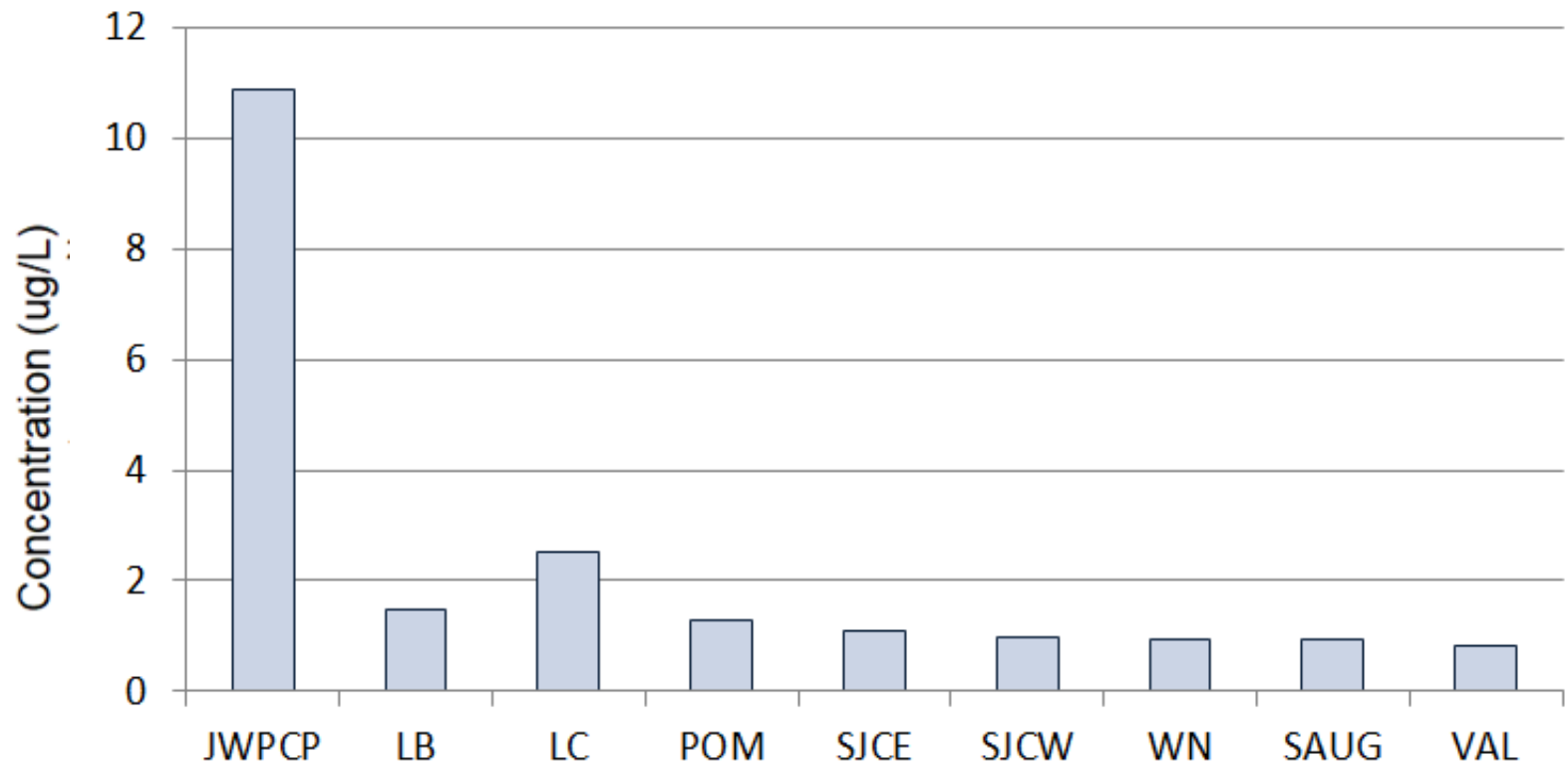
0.5 log removal via AOP for subsurface injection

CA Notification Level = 1 $\mu\text{g/L}$

EPA IRIS = 0.35 $\mu\text{g/L}$ (10^{-6} cancer risk)

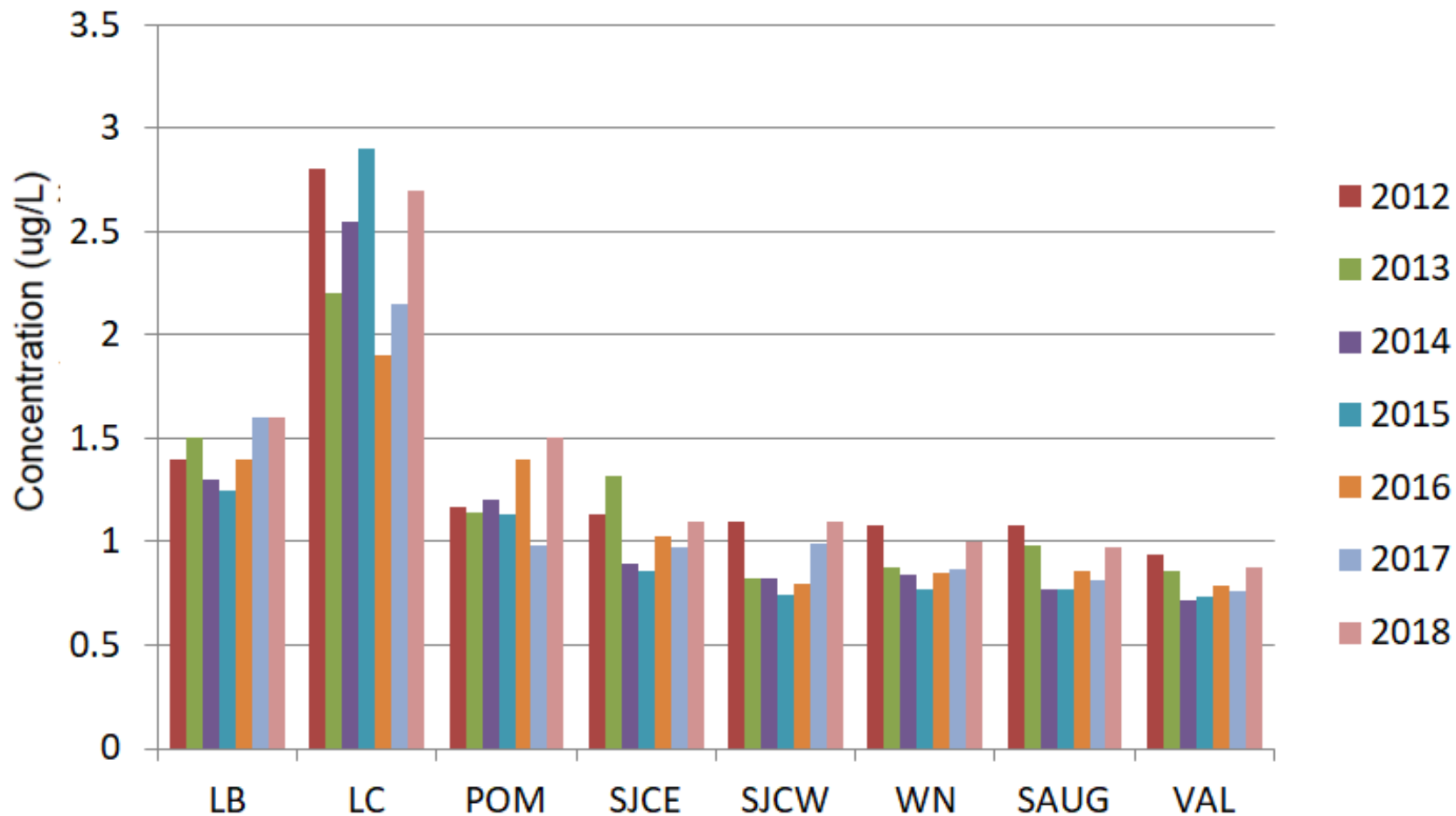


1,4-dioxane concentrations vary by treatment plant



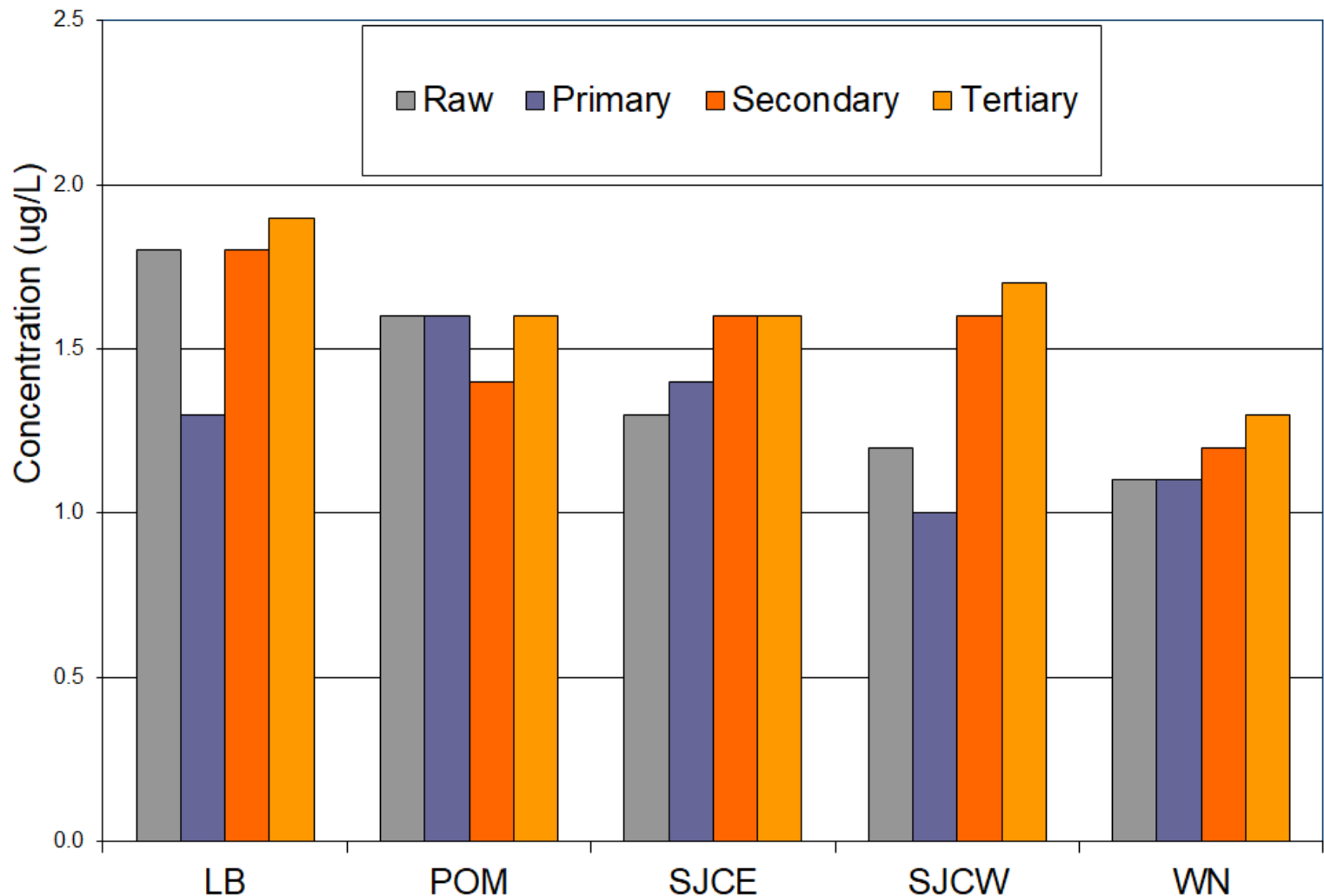


1,4 dioxane concentrations vary by treatment plant



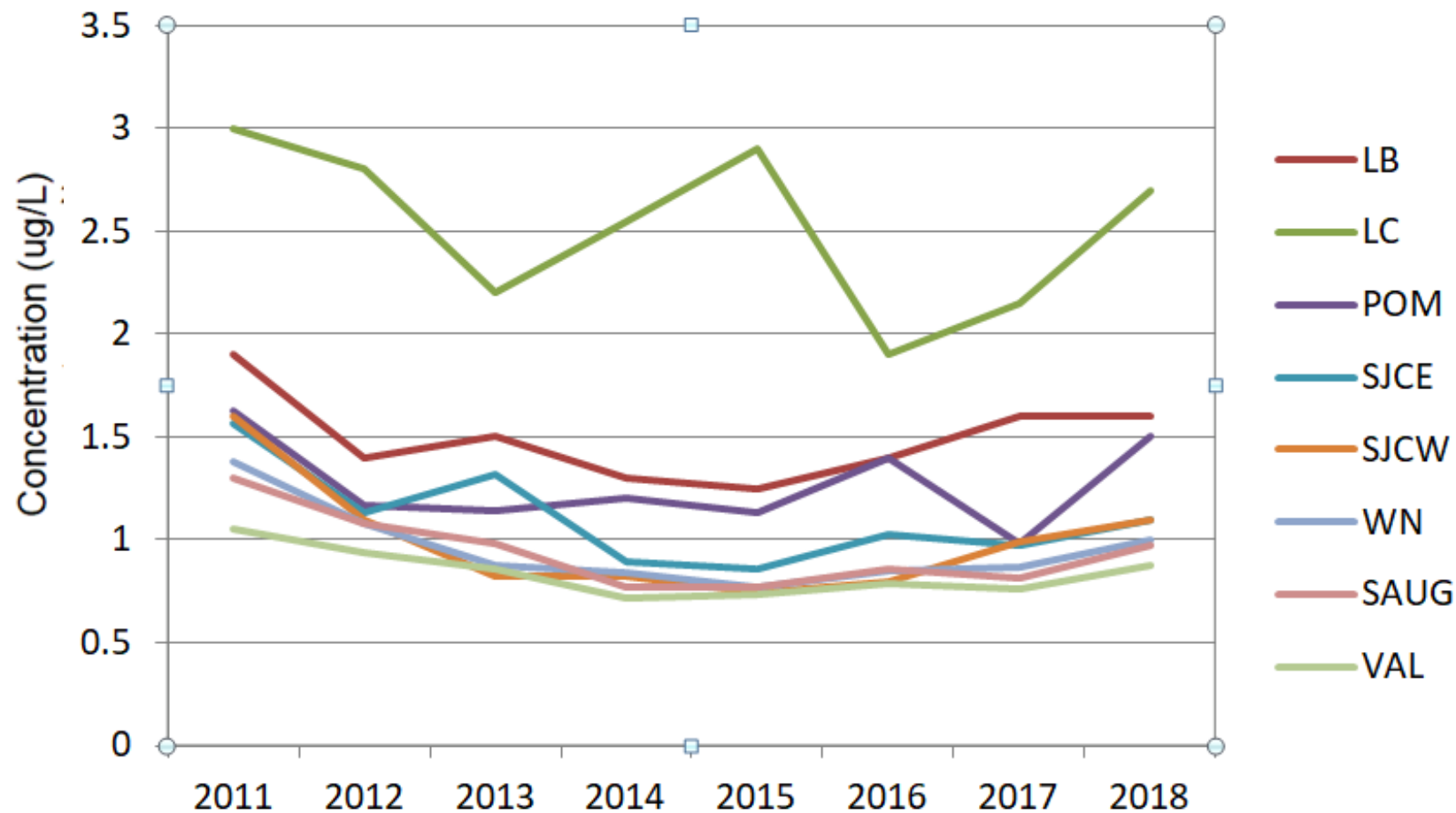


1,4-Dioxane is not removed in tertiary treatment



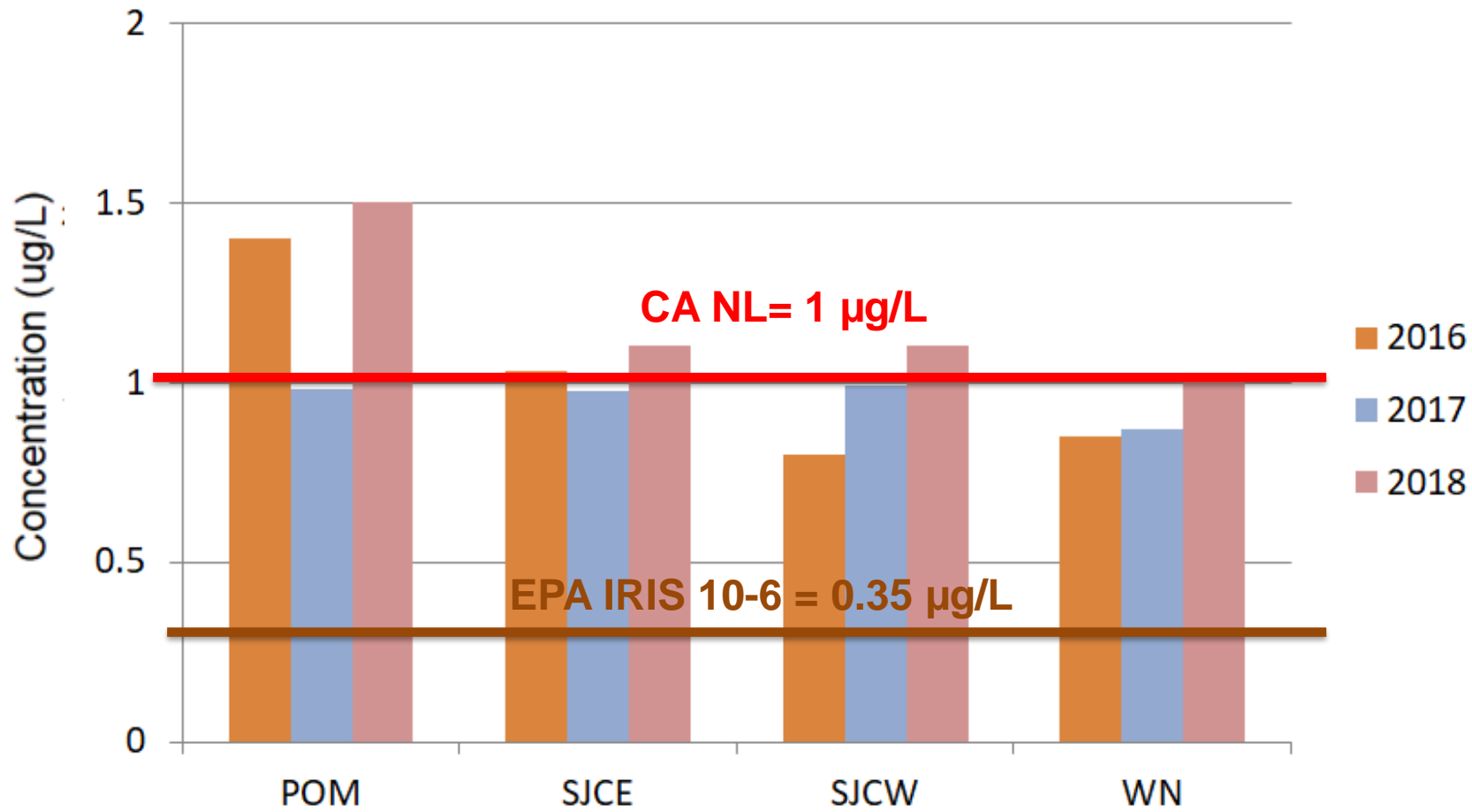


1,4-dioxane concentrations are remaining relatively steady





Montebello Forebay WRPs are right at current regulatory levels





Take away messages

- ✓ 1,4-dioxane is ubiquitous at our treatment plants, indicating a domestic source
- ✓ 1,4-dioxane isn't removed with tertiary treatment
- ✓ 1,4-dioxane concentrations are remaining relatively steady
- ✓ Some industrial sources at some of the treatment plants
- ✓ 1,4-dioxane concentrations hover right at current Notification Level at Montebello Forebay plants
- ✓ Further reduction in regulatory standards would necessitate expensive treatment